

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method of determining the load of the gates driven by a logic gate divided by the size of the logic gate, i.e., the fanout, for at least one transistor ~~fanout~~, the method comprising:

- a) creating a sizing model by replacing at least one logic element in a circuit description with a sizing element that includes a resistor that dynamically varies based upon one or more values in the sizing model, i.e., a dynamic resistor;
- b) determining a steady state solution to the sizing model;
- c) determining the size of at least one transistor; and
- d) determining ~~at least one transistor~~ the fanout for at least one transistor from the steady state solution.

2. (Original) The method of claim 1, wherein creating a sizing model includes replacing at least one logic element in the circuit description with a sizing element that includes a dynamic resistor the size of which is based at least upon a current.

3. (Original) The method of claim 1, wherein creating a sizing model includes replacing at least one logic element in the circuit description with a sizing element that includes a dynamic resistor the size of which is based at least upon the logical effort of a logical element.

4. (Original) The method of claim 1, wherein creating a sizing model includes replacing at least one logic element in the circuit description with a sizing element that includes a dynamic resistor the size of which is based at least upon a voltage.

5. (Original) The method of claim 1, wherein creating a sizing model includes replacing at least one logic element in the circuit description with a sizing element that includes a dynamic resistor the size of which is based at least upon a current and a voltage.

6. (Original) The method of claim 1, wherein creating a sizing model includes replacing at least one logic element in the circuit description with a sizing element that includes a dynamic resistor the size of which is based at least upon the logical effort of a logic element, a current, and a voltage.

7. (Original) The method of claim 1, wherein creating a sizing model includes replacing at least one logic element in the circuit description with a sizing element that includes a dynamic resistor the size of which is proportional to the square root of a current.

8. (Original) The method of claim 1, wherein creating a sizing model includes replacing at least one logic element in the circuit description with a sizing element that includes a dynamic resistor the size of which is proportional to the square root of the logical effort of a logic element.

9. (Original) The method of claim 1, wherein creating a sizing model includes replacing at least one logic element in the circuit description with a sizing element that includes a dynamic resistor

the size of which is proportional to the square root of the inverse of a voltage.

10. (Currently Amended) A device containing machine-readable instructions, that when executed perform a method of determining at least one ratio of the size of a first transistor with respect to the size of a second transistor ~~transistor sizes~~, the method comprising:

- a) creating a sizing model by replacing at least one logic element in a circuit description with a sizing element that includes a resistor that dynamically varies based upon one or more values in the sizing model, i.e., a dynamic resistor;
- b) determining a steady state solution to the sizing model; and
- c) determining the ratio of the size of the first transistor with respect to the size of the second transistor ~~at least one transistor fanout~~ from the steady state solution.

11. (Original) The device of claim 10, wherein creating a sizing model includes replacing at least one logic element in the circuit description with a sizing element that includes a dynamic resistor the size of which is based at least upon a current.

12. (Original) The device of claim 10, wherein creating a sizing model includes replacing at least one logic element in the circuit description with a sizing element that includes a dynamic resistor the size of which is based at least upon the logical effort of a logical element.

13. (Original) The device of claim 10, wherein creating a sizing model includes replacing at least one logic element in the circuit description with a sizing element that includes a dynamic resistor

the size of which is based at least upon a voltage.

14. (Original) The device of claim 10, wherein creating a sizing model includes replacing at least one logic element in the circuit description with a sizing element that includes a dynamic resistor the size of which is based at least upon a current and a voltage.

15. (Original) The device of claim 10, wherein creating a sizing model includes replacing at least one logic element in the circuit description with a sizing element that includes a dynamic resistor the size of which is based at least upon the logical effort of a logic element, a current, and a voltage.

16. (Original) The device of claim 10, wherein creating a sizing model includes replacing at least one logic element in the circuit description with a sizing element that includes a dynamic resistor the size of which is proportional to the square root of a current.

17. (Original) The device of claim 10, wherein creating a sizing model includes replacing at least one logic element in the circuit description with a sizing element that includes a dynamic resistor the size of which is proportional to the square root of the logical effort of a logic element.

18. (Original) The device of claim 10, wherein creating a sizing model includes replacing at least one logic element in the circuit description with a sizing element that includes a dynamic resistor the size of which is proportional to the square root of the inverse of a voltage.

19. (Currently Amended) An integrated circuit created at least in part by a method of determining at least one ratio of the size of a first transistor with respect to the size of a second transistor ~~transistor sizes~~, the method comprising:

- a) creating a sizing model by replacing at least one logic element in a circuit description with a sizing element that includes a resistor that dynamically varies based upon one or more values in the sizing model, i.e., a dynamic resistor;
- b) determining a steady state solution to the sizing model; and
- c) determining the ratio of the size of the first transistor with respect to the size of the second transistor ~~at least one transistor fanout~~ from the steady state solution.

20. (Original) The integrated circuit of claim 19, wherein creating a sizing model includes replacing at least one logic element in the circuit description with a sizing element that includes a dynamic resistor the size of which is based at least upon a current.

21. (Original) The integrated circuit of claim 19, wherein creating a sizing model includes replacing at least one logic element in the circuit description with a sizing element that includes a dynamic resistor the size of which is based at least upon the logical effort of a logical element.

22. (Original) The integrated circuit of claim 19, wherein creating a sizing model includes replacing at least one logic element in the circuit description with a sizing element that includes a dynamic resistor the size of which is based at least upon a voltage.